Brent Barbachem

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PROFESSIONAL OVERVIEW

A motivated and talented software engineer seeking a challenging opportunity where I can utilize and expand my skills.

SOFTWARE SKILLS

Languages	Go, Python, C, C++, Bash, Logo, Java, SQL, Lua, C#, R
Software	Docker, Podman, Openshift, Ansible, Terraform
	CMake, Google Protobuf, DDS, CAN, Qt, ArcGIS, Travis CI, Github Actions
Cloud Platforms	AWS, GCP, Azure
Systems	Linux/Unix, OSX, Windows

PROFESSIONAL EXPERIENCE

SENIOR SOFTWARE ENGINEER | RED HAT — MARCH 2022 - PRESENT

- Design and Implement GCP Shared VPC networking for openshift installations.
- Design and Implement AWS custom security groups for openshift installation.
- Bug fixes and backports for Openshift Installer and Openshift Ansible
- Create issues and enhancements for open source products.
- Code reviews for open source products.
- Time and Complexity estimations and exploratory work for Openshift Installation process.
- Assist customers with details regarding new and existing features.
- Ensure that Openshift Ansible is maintained and serviceable for all customers.
- Integrated the requirements to upgrade Openshift Ansible to the latest Ansible version.
- Design and implementation of epic tasks
- Design and Implement custom CI tasks/jobs for all major cloud platforms.
- Assist with documentation updates for new and existing features.

SOFTWARE ARCHITECT | HUNTINGTON INGALLS INDUSTRIES (ACQUIRED SPATIAL INTEGRATED SYSTEMS, INC) — JULY 2017 – MARCH 2022

- Lead engineer designing and implementing Unmanned Maritime Autonomy Architecture (UMAA) services.
- Architect for all major projects for the autonomy group. Managed software tasking through the entire task lifecycle.
- Deploy high volume software requests to customers during live and simulated events.
- Design and implementation of autonomous behaviors/missions for unmanned vehicles.
- Maintain and contribute to custom RTI DDS extensions. Libraries were written and maintained in multiple programming languages. Solved complex participant issues spanning all core projects.

SCIENTIST | SPACE AND NAVAL WARFARE SYSTEM CENTER ATLANTIC — NOV 2012 – JULY 2017

- Implemented custom storage system with required execution rate greater than 500 hz.
- Designed and implemented various parallel and serial communications systems.
- Lead software engineer for research project to analyze real-time audio information to determine emotional state. Utilized java and python to analyze big data.
- Backend and frontend development for distributed simulation environment using federations.

PROJECTS

OPENSHIFT INSTALLER | RED HAT.

- Software engineer that focuses on GCP & AWS development for openshift installs. As a member of the team I conduct code reviews, implement exploratory work/enhancements, and design/manage epic level tasks. I work with internal

teams and customers to ensure that the product is user friendly, all capabilities are maintained, and new features fulfill requirements.
- Utilized: Go, Python, bash, Podman, terraform, Ansible, and AWS/GCP/Azure golang libraries.

OPENSHIFT ANSIBLE | RED HAT.
- Software engineer that focuses on maintainability of the product. As a member of the team I conduct code reviews, triage and fix bugs, conduct product updates, maintain CI, and maintain/update documentation.
- Utilized: Python, bash, Podman, Ansible, and AWS/GCP/Azure python libraries.

JANUS | HUNTINGTON INGALLS INDUSTRIES / SPATIAL INTEGRATED SYSTEMS INC.
- Lead software engineer that managed a team of 8 developers to integrate the core autonomy solution with the graphical system and mechanical systems. The final product was service oriented and maintained with containers.
- Utilized: C++, Python, Synchronous and Asynchronous libraries, bash, Docker, RPMs, CAN, RTI DDS

SUPER SWARM | SPATIAL INTEGRATED SYSTYEMS INC.
- Project lead engineer managing team of 10 engineers. Built the command-and-control system using Qt and Ogre with C++. Integrated with numerous third-party companies to integrate our autonomy system on new vehicles. Established a secure communications network utilizing radios, radars and Bluetooth devices.
- Utilized: C++, Python, bash, RPMs, CAN, RTI DDS, Qt, Ogre, ArcGIS

WSN-12 | SPAWAR
- Created simulated legacy systems using Python. Designed and implemented parallel and serial communications systems capable of executing for months without failure. Implemented the prototype system display with Cairo. Implemented custom data storage with synchronous execution rates greater than 500 hz.
- Utilized: C, C++, Python, Bash, RPMs, X, Cairo, NTDS

EDUCATION

OLD DOMINION UNIVERSITY | M.E. MODELING SIMULATION & VISUALIZATION ENGINEERING (MSVE) MAY 2016

JAMES MADISON UNIVERSITY | B.S. COMPUTER SCIENCE MAY 2014